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03-20-040/088722
Attorney Docket Number: 15011

JCO5 Rec'd PCT/PTO 18 MAR 2002 PATENTS

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)**

International Application Number: PCT/EP00/09120
International Filing Date: 18 September 2000
Priority Date Claimed: 17 September 1999
Title of Invention: DEVICE FOR FINGER RECOGNITION
Applicant(s) for DO/EO/US: FINGERPIN AG

Applicant herewith submits to the United States Designed/Elected Office (DO/EO/US) the following items under 35 U.S.C. 371:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to immediately begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the international Application as filed (35 U.S.C. 371(c)(2)):
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English
7. ☐ Amendments to the claims of the International Application under PCT Article 19:
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has **NOT** expired.
 - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19(35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)):
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☒ will follow.
10. ☐ A translation of the Annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).
11. ☒ Copy of the:
 - a. ☒ International Preliminary Examination Report.
 - b. ☒ International Search Report.
12. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
13. ☒ An Assignment document for recording with a separate cover sheet in compliance with 37 CFR 3.28 and 3.31:
 - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☒ will follow.
14. ☒ A **FIRST** preliminary amendment.
15. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
16. ☐ A substitute specification.
17. ☐ A change of power of attorney and/or address letter.
18. ☐ Applicant claims Small Entity status

19. ☐ Other items of information: _____
20. ☒ 1 Sheets of drawings are enclosed.
21. ☒ The U.S. National Fee (35 U.S.C. 371(c)(1)) and other fees as follows:

10/088722
JC13 Rec'd PCT/PTO 18 MAR 2002

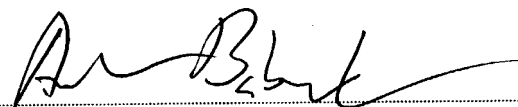
NATIONAL FEE (37 CFR 1.492):					TOTAL
<input type="checkbox"/>	Search Report has been prepared by the EPO or JPO (37CFR 1.492 (a)(5))				\$890
<input type="checkbox"/>	International Preliminary Examination fee paid to USPTO (37 CFR 1.492(a)(1))				\$710
<input type="checkbox"/>	No International Preliminary examination fee paid to USPTO but International search fee paid to USPTO (37 CFR 1.492(a)(2))				\$740
<input checked="" type="checkbox"/>	Neither International Preliminary examination fee nor International Search fee (37CFR 1.492(a)(3)) paid to USPTO				\$1,040
<input type="checkbox"/>	International Preliminary Examination fee paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4)(37 CFR 1.492 (a)(4))				\$100
<input type="checkbox"/>	Surcharge for furnishing the oath of declaration later than 20 or 30 months from the earliest claimed priority date (37 CFR 1.492(e))				\$130
<input type="checkbox"/>	Processing fee for furnishing the English translation later than the 20 or 30 months from the earliest claimed priority date (37 CFR 1.492(f))				\$130
<input checked="" type="checkbox"/>	Assignment Recordal Sheet (37 CFR 1.21(L))				\$40
	Number of Claims Filed	Number of Claims Allowed	Number of Extra Claims	Rate per Extra Claim	
Total Number of Claims Filed	20	20	0	\$18	\$0
Number of Independent Claims Filed	3	3	0	\$80	\$0
		Yes	No	Rate per Application	
Number of Multiple Dependent Claims Filed	0			\$270	\$0
Total Fees Enclosed for Large Entity					\$1,040
Total Fees Enclosed for Small Entity (1/2 of Large Entity)					\$520

- a. ☒ A check in the amount of \$ 1040 to cover the fee is enclosed.
- b. ☐ Please charge my deposit account \$ 0 to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, including request for extension and payment of extension fees due, when this is not explicitly requested by applicants, with a view toward avoidance of abandonment, to Deposit account No. 04-2219, referencing our docket # 13011. Any overpayment should be credited to this account.

Please direct all communication in connection with this application to the undersigned at:

ORUM & ROTH
53 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604-3606

Keith H. Orum
Attorney for Applicant
Registration Number 33985



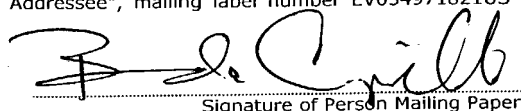
Andrew D. Babcock
Attorney for Applicant
Registration Number 44517

George F. Dvorak
Attorney for Applicant
Registration Number 17656

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this transmittal letter and the documents referred to as enclosed therein are being deposited with the United States Postal Service on March 18, 2002, in an envelope as "Express Mail Post Office Addressee", mailing label number EV034971821US addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Brenda Campillo
Name of Person Mailing Paper



Signature of Person Mailing Paper



PCT/PTO 27 AUG2002

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10/088722

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant: FINGERPIN AG

Serial Number: 10/088722

PCT Application Number: PCT/EP00/09120

International filing date: September 18, 2000

Title: DEVICE FOR FINGER RECOGNITION

Attorney Docket Number: 13011

PRELIMINARY AMENDMENT

Hon. Commissioner of
Patents and Trademarks
Washington, D.C. 20231

August 20, 2002

Sir:

Please amend the newly submitted application described above as follows:

In the Claims:

The claims have been amended. A version with markings and changes of the claims as amended is attached.

Please add the following claims:

14. Device according to claim 2, characterized by the fact that a positioning device is intended for the accurate positioning of the finger relating to the finger recognition sensor.
15. Device according to claim 3, characterized by the fact that a positioning device is intended for the accurate positioning of the finger relating to the finger recognition sensor.
16. Device according to claim 4, characterized by the fact that a positioning device is intended for the accurate positioning of the finger relating to the finger recognition sensor.

17. Device according to claim 6, characterized by the fact that as positioning device a transmitter is intended for the data acquisition of the position of the finger and that an output unit informing the user about the position of the finger is intended.

18. Device according to claim 6, characterized by the fact that the positioning device exhibits light sources as display device and/or as output unit.

19. Device according to claim 7, characterized by the fact that the positioning device exhibits light sources as display device and/or as output unit.

20. Device according to claim 6, characterized by the fact that the positioning device exhibits acoustic sources as display device and/or as output unit.

VERSIONS WITH MARKINGS TO SHOW CHANGES MADE

5. Device according to [one of the preceding] claim[s] 1, characterized by the fact that a positioning device is intended for the accurate positioning of the finger relating to the finger recognition sensor.
7. Device according to claim 5 [or 6], characterized by the fact that as positioning device a transmitter is intended for the data acquisition of the position of the finger and that an output unit informing the user about the position of the finger is intended.
8. Device according to claim 5[, 6, or 7], characterized by the fact that the positioning device exhibits light sources as display device and/or as output unit.
9. Device according to [one of the] claim[s] 5 [to 8], characterized by the fact that the positioning device exhibits acoustic sources as display device and/or as output unit.
10. Device according to [one of the] claim[s] 5 [to 9], characterized by the fact that the positioning device, the display device and/or the output unit exhibit mechanical limitation devices or limitation bodies.
13. Device according to claim 10[, 11 or 12], characterized by the fact that the limitation device exhibits a life test sensor, which acquires the blood circulation or the pulse of the finger.

CLAIMS AS AMENDED

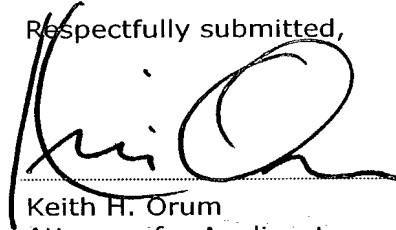
5. Device according to claim 1, characterized by the fact that a positioning device is intended for the accurate positioning of the finger relating to the finger recognition sensor.
7. Device according to claim 5, characterized by the fact that as positioning device a transmitter is intended for the data acquisition of the position of the finger and that an output unit informing the user about the position of the finger is intended.
8. Device according to claim 5, characterized by the fact that the positioning device exhibits light sources as display device and/or as output unit.
9. Device according to claim 5, characterized by the fact that the positioning device exhibits acoustic sources as display device and/or as output unit.
10. Device according to claim 5, characterized by the fact that the positioning device, the display device and/or the output unit exhibit mechanical limitation devices or limitation bodies.
13. Device according to claim 10, characterized by the fact that the limitation device exhibits a life test sensor, which acquires the blood circulation or the pulse of the finger.

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REMARKS

The foregoing amendments are primarily for the purpose of eliminating multiple dependencies, and placing the claims in proper form.

Respectfully submitted,



Keith H. Orum
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PRELIMINARY AMENDMENT

Hon. Commissioner of
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Washington, D.C. 20231

Sir:

Please amend the newly submitted application described above as follows:

In the Claims:

The claims have been amended. A version with markings and changes of the claims as amended is attached.

Please add the following claims:

14. Vorrichtung nach Anspruch 2, dadurch gekennzeichnet, daß eine Positionierungsvorrichtung zur exakten Positionierung des Fingers bezüglich des Fingererkennungssensors vorgesehen ist.
15. Vorrichtung nach Anspruch 3, dadurch gekennzeichnet, daß eine Positionierungsvorrichtung zur exakten Positionierung des Fingers bezüglich des Fingererkennungssensors vorgesehen ist.

16. Vorrichtung nach Anspruch 4, dadurch gekennzeichnet, daß eine Positionierungsvorrichtung zur exakten Positionierung des Fingers bezüglich des Fingererkennungssensors vorgesehen ist.
17. Vorrichtung nach Anspruch 6, dadurch gekennzeichnet, daß als Positionierungsvorrichtung ein Geber zur Erfassung der Position des Fingers und eine den Benutzer über die Position des Fingers informierende Ausgabevorrichtung vorgesehen sind.
18. Vorrichtung nach Anspruch 6, dadurch gekennzeichnet, daß die Positionierungsvorrichtung als Zeigevorrichtung und oder als Ausgabevorrichtung Lichtquellen aufweist.
19. Vorrichtung nach Anspruch 7, dadurch gekennzeichnet, daß die Positionierungsvorrichtung als Zeigevorrichtung und oder als Ausgabevorrichtung Lichtquellen aufweist.
20. Vorrichtung nach einem der Ansprüche 6, dadurch gekennzeichnet, daß die Positionierungsvorrichtung als Zeigevorrichtung und/oder als Ausgabevorrichtung Schallquellen aufweist.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

5. Vorrichtung nach [einem der vorhergehenden] Anspruch[e] 1, dadurch gekennzeichnet, daß eine Positionierungsvorrichtung zur exakten Positionierung des Fingers bezüglich des Fingererkennungssensors vorgesehen ist.
7. Vorrichtung nach Anspruch 5, [oder 6,] dadurch gekennzeichnet, daß als Positionierungsvorrichtung ein Geber zur Erfassung der Position des Fingers und eine den Benutzer über die Position des Fingers informierende Ausgabevorrichtung vorgesehen sind.
8. Vorrichtung nach Anspruch 5, [6 oder 7,] dadurch gekennzeichnet, daß die Positionierungsvorrichtung als Zeigevorrichtung und/oder als Ausgabevorrichtung Lichtquellen aufweist.
9. Vorrichtung nach [einem der] Anspruch[e] 5 [bis 9], dadurch gekennzeichnet, daß die Positionierungsvorrichtung als Zeigevorrichtung und/ oder als Ausgabevorrichtung Achallquellen aufweist.
10. Vorrichtung nach [einem der] Anspruch[e] 5 [bis 9,] daß die Positionierungsvorrichtung, die Zeigevorrichtung und/oder die Ausgabevorrichtung mechanische Begrenzungsvorrichtungen oder Begrenzungskörper aufweist.
13. Vorrichtung nach Anspruch 10, [11 oder 12,] dadurch gekennzeichnet, daß die Begrenzungsvorrichtung einen Lebend-Test-Sensor aufweist, welcher die Durchblutung oder den Pulsschlag des Fingers erfaßt.

CLAIMS AS AMENDED

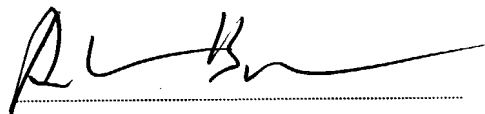
6. Vorrichtung nach Anspruch 1, dadurch gekennzeichnet, daß eine Positionierungsvorrichtung zur exakten Positionierung des Fingers bezüglich des Fingererkennungssensors vorgesehen ist.
7. Vorrichtung nach Anspruch 5, dadurch gekennzeichnet, daß als Positionierungsvorrichtung ein Geber zur Erfassung der Position des Fingers und eine den Benutzer über die Position des Fingers informierende Ausgabevorrichtung vorgesehen sind.
8. Vorrichtung nach Anspruch 5, dadurch gekennzeichnet, daß die Positionierungsvorrichtung als Zeigevorrichtung und oder als Ausgabevorrichtung Lichtquellen aufweist.
9. Vorrichtung nach Anspruch 5, dadurch gekennzeichnet, daß die Positionierungsvorrichtung als Zeigevorrichtung und/ oder als Ausgabevorrichtung Achallquellen aufweist.
10. Vorrichtung nach Anspruch 5, daß die Positionierungsvorrichtung, die Zeigevorrichtung und/oder die Ausgabevorrichtung mechanische Begrenzungsvorrichtungen oder Begrenzungskörper aufweist.
13. Vorrichtung nach Anspruch 10, dadurch gekennzeichnet, daß die Begrenzungsvorrichtung einen Lebend-Test-Sensor aufweist, welcher die Durchblutung oder den Pulsschlag des Fingers erfaßt.

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Based on: PCT/EP00/09120
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REMARKS

The foregoing amendments are primarily for the purpose of eliminating multiple dependencies, and placing the claims in proper form.

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PCT/PTO

27 AUG 2002

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Device for finger recognition

The invention originates from a finger recognition sensor according to the generic term of the claim 1.

Such devices are used to determine and verify the identity of a person. This is for example necessary for the assignment of access authorizations and entrance authorizations and is made use of for ATM-machines, computer stations, entrances to companies, safety areas or safe-deposit boxes. In contrast to the well-known devices, with which a user discloses his identity with an ID, a smart card with or without personal identification number (pin), or a password, the identity of a person is proven with the help of a device for finger recognition using typical features of the finger, in particular the skin at the fingertip. For this reason the device for finger recognition is equipped with a finger recognition sensor. This sensor determines the typical features of the finger for example with visual means or through semiconductors or lasers. The data acquisition takes place for example visually, thermally, capacitively or via change of a magnetic field.

For this the finger must be laid on, pushed on or rolled over the sensor or on a housing surrounding the sensor. Here it is of disadvantage that the laying on and pushing on of the finger contaminates the sensor or the housing of the sensor. In this way not only diseases can be transferred, but also such a strong contamination can take place, that the finger recognition sensor can take up no more information. In order to exclude this from happening, the sensor or the housing of the sensor must be cleaned in regular intervals. In addition a manipulation of the device for finger recognition is possible. The fingerprint left on the sensor or the housing of the sensor can be determined and abused by unauthorized persons. In addition the sensor can be damaged by deliberate or unconscious manipulation and thereby made useless. Finally by laying on and pushing on of the finger, the amount of information to be taken from the finger area is limited to the area presented from the finger. Lateral areas cannot be acquired in this way.

In contrast to this the device according to the invention with the characteristic features of the claim 1 has the benefit that the finger recognition sensor acquires the typical features of the finger, without laying the finger on the finger

recognition sensor or the housing. The data acquisition takes place without contact. A contamination of the sensor or the housing of the sensor is thereby avoided. In addition no diseases can be transferred to the users. The possibilities of a manipulation are strongly reduced in this way. Beyond that the sensor can acquire a substantially larger area of the finger, whereby the number of typical features to be evaluated is increased.

For the acquisition of the data the finger can be arranged either at a given position without movement. As the further possibility the finger can be moved over a given position and the acquisition takes place during the movement of the finger. If several finger recognition sensors are used next to each other, then acquisition can take place not only at one point but also along a series of points.

After a favorable embodiment of the invention the finger recognition sensor is a visual sensor. The information is acquired thereby over a camera or a camera system, for example over a CCD or a MOS camera. Especially suitable are sensors, which create not only one but several images of the finger and determine from these images in each case the focused areas. Images can already be created when the finger approaches the finger recognition sensor and when the finger is being removed from the finger recognition sensor. Depending upon distance between fingers and finger recognition sensor different areas of the finger are shown in focus. In contrast to well-known devices, with which only then a image of the finger is created, if the finger is located in a certain given distance to the finger recognition sensor, it is desirable for such devices for the multi-picture recording that the distance between finger and finger recognition sensor is changed during the process of creating the images.

After a further favorable embodiment of the invention the finger recognition sensor is active in the infrared wave band. With the help of an infrared sensor, for example an infrared camera, infrared pictures of the finger can be created.

After a further favorable embodiment of the invention a capacitive sensor is intended as the finger recognition sensor.

After a further favorable embodiment of the invention a positioning device is intended for the accurate positioning of the finger relating to the finger

recognition sensor. Thus the user receives an indication or an instruction, at which place he must position the finger or over which position he must move the finger, so that the finger recognition sensor can recognize the finger. This is in particular necessary with devices for the contact less data acquisition of the finger, since in this case the finger cannot be placed on a sensor or the housing surrounding the sensor, which is marked at the correct position. The positioning device can operate actively or passively. That means, it can only indicate to the user in which area he has to position his finger, or it can acquire the actual position of the finger and inform the user whether an accurate positioning is already present or whether the position must be changed. In order to indicate to the user the position on which or over which he must lead his finger, the positioning device exhibits a display device. The display device contains for example mechanical limitation bodies, which limit the area of the finger, or a source of light, which light up only the interesting area. For this also light in different colors can be used.

After a further favorable embodiment of the invention the positioning device exhibits a transmitter for the data acquisition of the position of the finger and an output unit informing the user about the position of the finger. Additionally a display device can be intended, which informs the user first about the identification area. The transmitter can for example be a light barrier. If the finger does not interrupt the light barrier, then the user receives an acoustic or visual signal, which causes him to change the position of the finger. The position of the finger is changed until the light barrier is interrupted.

In this case the user is informed about the fact that an accurate positioning is now achieved.

After a further favorable embodiment of the invention the positioning device includes a source of light, an acoustic source or mechanical limitation devices as display device and/or as output unit. A combination of one or several of these devices can be intended as well. A horizontally or vertically arranged hoop, which is optionally equipped with sources of light, can serve for example as mechanical limitation device. The user is instructed to insert the finger along the symmetry axis of the hoop and to make sure that a distance is kept on each side between the hoop and the finger. Other forms of mechanical limitation bodies, as for example bars are likewise possible. It is of advantage that no contact takes place between the finger and the limitation body, since in this case again the danger of contamination or the transmission of diseases is present.

After a further favorable embodiment of the invention the limitation device exhibits a life test sensor, which acquires the blood circulation or the pulse of the finger. In this way it is ensured, that the finger recognition sensor cannot be manipulated by reproductions of a finger. Such a sensor can be for example a Piezo sensor, which determines the blood circulation of the finger using the Doppler effect.

Further benefits and favorable embodiments of the invention can be taken from the following description, the drawing and the claims.

A design example of the invention is represented in the drawing and following described in more detail. Shown are:

Fig. 1: Perspective representation of a device for finger recognition

Fig. 2: Positioning device of the device for finger recognition in accordance with figure 1 in a top view.

In figure 1 a device for finger recognition is represented with a finger recognition sensor surrounded by a housing 1, which is not shown in the drawing. The finger recognition sensor is arranged in the area 2 of the housing 1. In a certain distance to the housing 1 is a hoop-like positioning device 3, which is equipped with sources of light 4. A screen 5 above the positioning device protects the finger recognition sensor from effects from above, in particular also from the

incidence of scattered light. In order for the finger recognition sensor to recognize a finger, the finger must be inserted into the hoop-like positioning device 3 in such a way that it, as shown in figure 2, is arranged along the symmetry axis of the device and that a distance to the positioning device is maintained on all sides. This position can be acquired through transmitters not represented in the drawing and the accurate and/or insufficient positioning can be indicated by the sources of light 4, for example in different color.

All features represented in the description, the following claims and the drawing can be substantial for the invention both individually and in arbitrary combination with one another.

[illegible][illegible]

- [illegible]

Claims

1. Device for finger recognition
with a finger recognition sensor and
with a housing (1), at least partially enclosing the finger recognition sensor,
characterized by the fact,
that a finger recognition sensor is intended, which acquires the typical
features of the finger, whereby a distance consists between the finger
recognition sensor and the finger and/or between the housing (1) and the
finger.
2. Device according to claim 1, characterized by the fact that the finger
recognition sensor is a visual sensor.
3. Device according to claim 1, characterized by the fact that the finger
recognition sensor is active in the infrared wave range.
4. Device according to claim 1, characterized by the fact that the finger
recognition sensor is a capacitive sensor.
5. Device according to one of the preceding claims, characterized by the fact that
a positioning device (3) is intended for the accurate positioning of the finger
relating to the finger recognition sensor.
6. Device according to claim 5, characterized by the fact that the positioning
device (3) exhibits a display device, which indicates to the user the place, at
which the finger is to moved past or to be positioned.
7. Device according to claim 5 or 6, characterized by the fact that as positioning
device a transmitter is intended for the data acquisition of the position of the
finger and that an output unit informing the user about the position of the
finger is intended.
8. Device according to claim 5, 6, or 7, characterized by the fact that the
positioning device (3) exhibits light sources (4) as display device and/or as
output unit.

9. Device according to one of the claims 5 to 8, characterized by the fact that the positioning device exhibits acoustic sources as display device and/or as output unit.
10. Device according to one of the claims 5 to 9, characterized by the fact that the positioning device, the display device and/or the output unit exhibit mechanical limitation devices or limitation bodies.
11. Device according to claim 10, characterized by the fact that the limitation device consists of a horizontally or vertically arranged hoop (3).
12. Device according to claim 10, characterized by the fact that the limitation device consists of a horizontally or vertically arranged bar.
13. Device according to claim 10, 11 or 12, characterized by the fact that the limitation device exhibits a life test sensor, which acquires the blood circulation or the pulse of the finger.

(12) NACH DEM VEREINBAR ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES
PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

(19) Weltorganisation für geistiges Eigentum
Internationales Büro



(43) Internationales Veröffentlichungsdatum
29. März 2001 (29.03.2001)

PCT

(10) Internationale Veröffentlichungsnummer
WO 01/22349 A1

- (51) Internationale Patentklassifikation⁷: G06K 9/00 (74) Anwälte: VOGLER, Silvia usw.; Wiederholdstrasse 10, 70174 Stuttgart (DE).
- (21) Internationales Aktenzeichen: PCT/EP00/09120
- (22) Internationales Anmeldedatum: 18. September 2000 (18.09.2000) (81) Bestimmungsstaaten (*national*): JP, US.
- (25) Einreichungssprache: Deutsch (84) Bestimmungsstaaten (*regional*): europäisches Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).
- (26) Veröffentlichungssprache: Deutsch
- (30) Angaben zur Priorität: 199 44 755.1 17. September 1999 (17.09.1999) DE
- (71) Anmelder (für alle Bestimmungsstaaten mit Ausnahme von US): FINGERPIN AG [CH/CH]; Buchzelgstrasse 65, CH-8053 Zürich (CH).
- (72) Erfinder; und
- (75) Erfinder/Anmelder (nur für US): MÜLLER, Markus, R. [CH/CH]; Buchzelgstrasse 21, CH-8053 Zürich (CH).

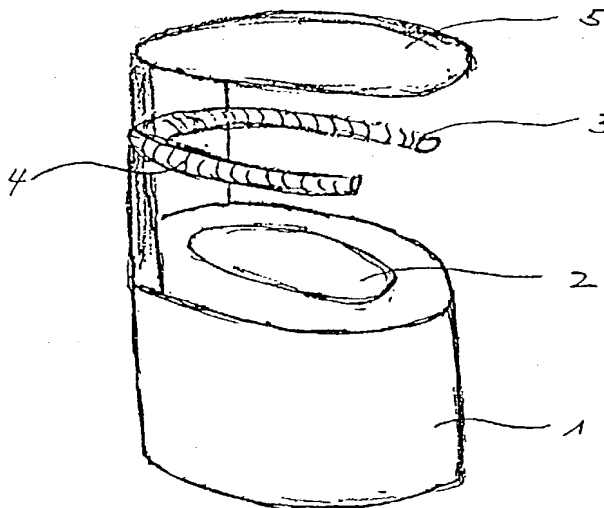
Veröffentlicht:

- Mit internationalem Recherchenbericht.
- Vor Ablauf der für Änderungen der Ansprüche geltenden Frist; Veröffentlichung wird wiederholt, falls Änderungen eintreffen.

Zur Erklärung der Zweibuchstaben-Codes, und der anderen Abkürzungen wird auf die Erklärungen ("Guidance Notes on Codes and Abbreviations") am Anfang jeder regulären Ausgabe der PCT-Gazette verwiesen.

(54) Title: DEVICE FOR FINGER RECOGNITION

(54) Bezeichnung: VORRICHTUNG ZUR FINGERERKENNUNG



(57) Abstract: The invention relates to a device for finger recognition having a finger recognition sensor and a housing (1) which surrounds or partially surrounds said sensor wherein a finger recognition sensor is provided which detects typical characteristics of said finger and a distance is kept between said finger detection sensor and said finger and between said housing and said finger.

01/22349 A1



DT05 Rec'd PCT/PTO 27 AUG 2002

ORUM & ROTH
INTELLECTUAL PROPERTY LAW
COMMERCIAL LAW
LITIGATION

53 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604-3606 U.S.A.

**DECLARATION FOR UTILITY OR
DESIGN
PATENT APPLICATION
(37 CFR 1.63)**

☐ Declaration
Submitted with
Initial Filing

OR

☒ Declaration
Submitted after
Initial Filing
(surcharge (37
CFR 1.16 (e))
required)

Attorney Docket Number: 13011

First Named Inventor: MÜLLER, Markus R.

Application Number: 10/088,722

Filing Date: March 18, 2002

Group Art Unit:

Examiner Name:

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

DEVICE FOR FINGER RECOGNITION

(Title of the Invention)

the specification of which

☐ Is attached hereto
or

☒ was filed on 18/03/2002 as United States Application Number or PCT International
(DD/MM/YYYY)

Application Number 10/088,722 and was amended on July 26th, 2002 = 26/07/2002
(DD/MM/YYYY)
(if applicable).

I hereby state that I reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365 (b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT International application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (DD/MM/YYYY)	Priority Not Claimed	Certified Copy Attached? YES NO
199 44 755.1	Germany	17/09/1999		X
PCT/EP00/09120	PCT	18/09/2000		X

Additional foreign application numbers are listed on a supplemental priority data sheet attached hereto:

DECLARATION-----Utility or Design Patent Application

Direct all

correspondence to:

☐Customer Number
or Bar Code Label

OR

☒Correspondence
address below

Name: Orum & Roth

Address: 53 West Jackson Boulevard

City: Chicago

State: IL

Zip: 60604

Country: U.S.A.

Telephone: 312.922.6262

Fax: 312.922.7747

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR: ☐ A petition has been filed for this undersigned inventor

Given Name

(first and middle [if any]): Markus...R.

Family Name

or Surname: MÜLLER

Inventor's

Signature: M Müller Date: 26/07/2002Residence: City: Zürich State: Switzerland Country: Swiss Citizenship: SwissMailing Address: Buchholzstrasse 21City: Zürich State: Switzerland Zip: 8053 Country: SwitzerlandNAME OF SECOND INVENTOR: ☐ A petition has been filed for this undersigned inventor

Given Name

(first and middle [if any]):

Family Name

or Surname:

Inventor's

Signature: Date:

Residence: City: State: Country: Citizenship:

Mailing Address:

City: State: Zip: Country: